

A Conservation Plant Released by the Natural Resources Conservation Service  
Big Flats Plant Materials Center, Big Flats, New York

# Glacial Lake Albany Germplasm wild lupine

*Lupinus perennis L.*



Glacial Lake Albany Germplasm wild lupine is a source-identified release. It was released in 1999 by the USDA Natural Resources Conservation Service (NRCS), Big Flats Plant Materials Center, Albany Pine Bush Preserve Commission, The Nature Conservancy, and the New York State Department of Environmental Conservation for endangered species habitat restoration in the Pine Barrens of Glacial Lake Albany, in Eastern New York.

### Description

Glacial Lake Albany Germplasm wild lupine is a native, perennial, cool-season forb in the pea family, with showy purplish-blue flowers, arranged in upright spikes. Each leaf is palmately compound, divided into 8 narrow light green leaflets. It grows to a height of 2 feet, blooming in May and June. Wild lupine is a long-lived legume that fixes nitrogen and has a thick, deep taproot.

### Source

Glacial Lake Albany Germplasm wild lupine was originally collected from stands within Glacial Lake Albany, from Albany to Glen Falls, New York, and within the Albany Pine Bush Preserve. The elevation within the Pine Barrens is approximately 300 feet, containing a savannah-like ecosystem with sandy soils,

receiving an annual mean precipitation of 36 inches per year.



Close up of wild lupine flowers. Photo was taken at the USDA NRCS Big Flats Plant Materials Center, in August 2013.

### Conservation Uses

Glacial Lake Albany Germplasm wild lupine is used in restoration plantings on the inland pitch pine-scrub oak barrens of Glacial Lake Albany and provides habitat for 20 rare species, specifically the federally endangered Karner blue butterfly (*Lycaeides melissa samuelis*). The caterpillars of this butterfly, as well as the larvae of persius duskywing and frosted elfin, feed exclusively on the stems and leaves of wild lupine.

Glacial Lake Albany Germplasm wild lupine can also be planted in butterfly and pollinator gardens. Wild lupine flowers provide nectar, early in the season, for butterflies and would be ideal for restoration on drier sites, meadows and roadsides. Honey bees, bumble bees, and eastern carpenter bees are pollinators of wild lupine.



Collection area of Glacial Lake Albany Germplasm wild lupine (map courtesy of Wikipedia)

### Area of Adaptation and Use

Glacial Lake Albany Germplasm wild lupine is well adapted to dry, well-drained, infertile sandy soils. It prefers open areas where it gets full sun, but it will also

grow in part shade. It will grow in an open wooded area but takes longer for it to get established. The natural range of Glacial Lake Albany Germplasm wild lupine is Eastern, New York. In power line rights-of-ways, it occurs on sites with little bluestem (*Schizachyrium scoparium*), Tatarian honeysuckle (*Lonicera tatarica*), northern dewberry (*Rubus flagellaris*), bear oak (*Quercus ilicifolia*), whorled yellow loosestrife (*Lysimachia quadrifolia*), sedges (Cyperaceae), and goldenrods (*Solidago* spp.). In the Albany Pine Bush area of New York, lupine grows in soils having an average pH of 5.

### **Establishment and Management for Conservation Plantings**

Glacial Lake Albany Germplasm wild lupine seeds will germinate in varying conditions and should be seeded in the spring. A good, weed free seedbed needs to be prepared beforehand, for establishment.

Establish plants in areas that receive full sun with well-drained soils. Wild lupine can be mixed with other species in wildflower plantings and other restoration projects. However, seed will need to be scarified and inoculated beforehand, if sown in the spring.

*Management:* Once it is established, it does well. Glacial Lake Albany Germplasm wild lupine plants respond well to prescribed burning, mowing, herbicide application, and/or cutting to maintain or create wild lupine habitat.

### **Ecological Considerations**

Glacial Lake Albany Germplasm wild lupine is a collection of naturally occurring plants. It is not invasive in its range, nor does it have any potential to become invasive.

Wild lupine grown in the greenhouse is very susceptible to aphids, thrips, and fungus gnats. Wild lupine is toxic to some livestock, but is an important food source for a variety of wildlife species.

### **Seed and Plant Production**

*Seed propagation:* Wild lupine seeds must be soaked in warm water overnight, or 8 hours. Viable seeds will sink and the floaters need to be discarded. The seeds then need to be inoculated with nitrogen-fixing *Rhizobium* bacteria.

Sow 3-4 seeds and cover lightly, into deep pots or cells (9 inches deep by 3 inches wide) so good drainage can be maintained. Using a 50/50 mixture of coarse sand and commercial potting media will give the best results. Keep pots in the greenhouse at 65-70 F, until planting, and be sure to keep soil moist. Germination should occur within a week. Mechanical scarification using coarse sand paper or nicking the seed coat can also be utilized before sowing. The seedlings should not be kept in the pots or containers longer than 5-6 months.

After risk of frost, plant wild lupine in the field, in black plastic or a weed free area, with plants spaced at 5-6 inches apart, ensuring soil is moist during establishment. With proper care and good soil moisture in the first year, seedlings started in the greenhouse will establish successfully. Plants will seed in 2-3 years. Weed control may be needed in the first year, but once plants are established, little maintenance is needed.

### **Availability**

*For conservation use:* Glacial Lake Albany Germplasm wild lupine can be obtained by contacting the New York State Improvement Project. It is also available in some commercial nurseries in the Northeast.

*For seed or plant increase:* To obtain seed, contact the USDA NRCS Big Flats Plant Materials Center, if interested in growing Glacial Lake Albany wild lupine for production.

*For more information, contact:*  
USDA NRCS Big Flats Plant Materials Center  
3266 State Route 352  
Corning, New York 14830  
607-562-8404 (phone)

### **Citation**

Release Brochure for Glacial Lake Albany Germplasm wild lupine (*Lupinus perennis* L.). USDA-Natural Resources Conservation Service, Big Flats Plant Materials Center. Corning, New York 14830. [September 2014]

For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov/>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov/>>